

AMENDMENT

IN THE CLAIMS

Please amend the claims as follows. This listing of claims will replace all prior versions and listings of the claims in the present application.

D1 1. (Currently Amended) A method of lowering plasma glucagon in a subject, comprising:

identifying a subject in need of therapeutic lowering of plasma glucagon levels; and
administering to said subject a therapeutically effective glucagon lowering amount of a compound selected from the group consisting of: an exendin, an exendin agonist analog, a polymer-modified exendin and a polymer-modified exendin analog,
wherein said exendin and exendin analog have an amino acid sequence that is more than 30 amino acid residues in length, and

wherein said polymer-modified exendin and polymer-modified exendin analog comprise an exendin or exendin analog which has an amino acid sequence that is more than 30 amino acid residues in length.

2. (Original) The method of claim 1 wherein said subject is suffering from necrolytic migratory erythema.

3. (Original) The method of claim 1 wherein said subject has a glucagonoma.

D2 4. (Currently Amended) The method of any of claims 1-3 wherein said exendin ~~agonist is an exendin~~ and exendin analog each comprise an amino acid sequence selected from the sequences of SEQ ID NO: 47 and SEQ ID NO: 48, and

wherein said polymer-modified exendin and polymer-modified exendin analog each comprise an exendin or exendin analog, respectively, which has an amino acid sequence selected from the sequences of SEQ ID NO: 47 and SEQ ID NO: 48.

5. (Currently Amended) The method of claim -4- 1 wherein said compound is an exendin, and said exendin is exendin-4.

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Conclude

6. (Currently Amended) The method of any of claims 1-3 ~~or 4~~ wherein said subject is a human.

7. (Currently Amended) The method of any of claims 1-3 wherein said polymer-modified exendin or and polymer-modified exendin agonist analog comprise an exendin or exendin agonist is linked to one or more polyethylene glycol polymers.

8. (Original) The method of claim 7, wherein said one or more polyethylene glycol polymers each have molecular weight between 500 and 20,000.

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9. (Previously Added, Currently Amended) A method of lowering plasma glucagon in a subject, comprising:

identifying a subject in need of therapeutic lowering of plasma glucagon levels; and
administering to said subject a glucagon lowering amount of at least one compound selected from the group consisting of: a polymer-modified exendin and a polymer-modified exendin agonist analog;

wherein said polymer-modified exendin and polymer-modified exendin analog each comprise an exendin or exendin analog, respectively, which has an amino acid sequence that is more than 30 amino acid residues in length.

10. (Previously Added, Currently Amended) A method of lowering plasma glucagon in a subject, comprising:

identifying a subject in need of therapeutic lowering of plasma glucagon levels; and
administering to said subject a glucagon lowering amount of a composition consisting essentially of ~~at least one of~~ an exendin, an exendin agonist analog, a polymer-modified exendin, and a polymer-modified exendin agonist analog, or combinations thereof;

wherein said exendin and exendin analog each have an amino acid sequence that is more than 30 amino acid residues in length, and

wherein said polymer-modified exendin and polymer-modified exendin analog each comprise an exendin or exendin analog, respectively, which has an amino acid sequence that is more than 30 amino acid residues in length.

DB conclude 11. (Previously Added, Currently Amended) The method of claim 1, wherein the compound is provided in a dosage unit form without another anti-glucagon agent.

12. (Previously Added) The method of claim 1, wherein the subject has a diabetes-related disorder.

13. (Previously Added) The method of claim 12, wherein the subject has type 2 diabetes.

D4 14. (New) The method of claim 9, wherein said exendin and exendin analog each comprise an amino acid sequence selected from the sequences of SEQ ID NO: 47 and SEQ ID NO: 48.

15. (New) The method of claim 10, wherein said exendin and exendin analog each comprise an amino acid sequence selected from the sequences of SEQ ID NO: 47 and SEQ ID NO: 48, and

wherein said polymer-modified exendin and polymer-modified exendin analog each comprise an exendin or exendin analog, respectively, which has an amino acid sequence selected from the sequences of SEQ ID NO: 47 and SEQ ID NO: 48.

16. (New) The method of claim 9, wherein said compound is a polymer-modified exendin, and said exendin is exendin-4.

17. (New) The method of claim 10, wherein said composition consists essentially of an exendin, and said exendin is exendin-4.

18. (New) The method of claim 4, wherein said amino acid sequence has a sequence of SEQ ID NO: 47, wherein the Xaa in position 1 is His; the Xaa in position 2 is Gly; the Xaa in position 6 is Phe or naphthalanine; the Xaa in position 14 is Leu, pentylglycine or Met; the Xaa in position 22 is Phe or naphthalanine; the Xaa in position 23 is Ile or Val; the Xaa in position 25 is Phe, Tyr, or naphthylalanine; the Xaa in positions 31, 36, 37, and 38 are independently selected from Pro, homoproline, thioproline, or N-alkylalanine; and the Xaa in position 39 is Ser or Tyr.

19. (New) The method of claim 4, wherein said amino acid sequence has a sequence of SEQ ID NO: 47, wherein the Xaa in position 14 is Leu or pentylglycine; and the Xaa in position 22 is Phe or naphthylalanine.

20. (New) The method of claim 4, wherein said amino acid sequence has a sequence of SEQ ID NO: 48, wherein the Xaa in positions 6 and 22 are independently selected from Phe or naphthylalanine; the Xaa in position 23 is Ile or Val; and the Xaa in positions 30, 36, 37, and 38 are independently selected from Pro, homoproline, thioproline, or N-alkylalanine.
